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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,353	05/05/2006	Hiroshi Kajitani	8017-1191	8961
466 7590 03/05/2009 YOUNG & THOMPSON 209 Madison Street Suite 500 ALEXANDRIA, VA 22314			EXAMINER MARTIN, ANGELA J	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 03/05/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/578,353

Applicant(s)

KAJITANI ET AL.

Examiner

ANGELA J. MARTIN

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-16 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-16 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is responsive to the amendment filed on November 6, 2008. The Applicant amended claim 1; canceled claims 4, 17, 18; and added new claim 21. However, a new rejection is presented for the following reasons of record.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fajita et al., U.S. Pat. Application Pub. 2005/0058880.

Fajita et al., teach a fuel cartridge for a fuel cell comprising a first chamber for retaining first liquid fuel, said first liquid fuel being a high-concentration liquid fuel (0023; 0035; 0051; 0058); a second chamber for retaining second liquid fuel, said second liquid fuel being a low-concentration liquid fuel (0024; 0033; 0035; 0054; 0059); said second chamber being a fuel mixing tank for mixing said first liquid fuel and said second liquid fuel (0035); a partition wall for partitioning said first chamber and said second chamber (0054), and a mounting section to be fixed to a fuel cell body (Fig. 9-13; ref. 172 first member, ref. 174 second member, ref. 176 third member), wherein said second chamber is provided with a fuel outlet port through which said second liquid fuel passes

to said fuel cell body (0059), and is provided with a fuel inlet port to which the first liquid fuel is introduced from the first chamber (0035), and the fuel tank is removable mountable to said fuel cell body (Fig. 6). The fuel cartridge for the fuel cell according to claim 1, wherein said second chamber further comprises a fuel recovery pipe connection hole through which said second chamber receives fuel from the fuel cell body (0043; Fig. 9, ref. 170). The fuel cartridge for the fuel cell according to claim 1, wherein said fuel outlet port is further arranged in the first chamber, and the first liquid fuel passes through said fuel outlet port arranged in said first chamber (0035). The fuel cartridge of claim 2, wherein a concentration meter measures a concentration of the second liquid fuel (0054).

Thus, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because while the fuel tank 110 and buffer tank 138 are not taught as both detachable, the fuel tank 110 is taught as detachable (Fig 6). One of skill would have found it obvious to detach the fuel tank 110 along with the buffer tank 138 in order to be able to remove all tanks having any remaining fuel.

3. Claims 1-3, 5-7, 10-16, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fajita et al., U.S. Pat. Application Pub. 2005/0058880, in view of Becerra et al., U.S. Pat. No. 7,270,907 B2, in further view of Prased et al., U.S. Pat. Application Pub. 2003/0138679 A1 or Bullock et al. U.S. Pat. Application Pub. 2003/0207158 A1 or DeVos et al., U.S. Pat. Application Pub. 2005/0079128 A1.

Fajita et al., teach a fuel cell as described above.

Fajita et al., do not teach the claim limitations of claims 5-7, 10-16, 19, 20.

Becerra et al., teach the cartridge wherein the first liquid fuel and second liquid fuel are different in color (col. 10, lines 6-18). The fuel cartridge for the fuel cell according to claim 1, further comprising a first container having said first chamber and a second container having said second chamber and constructed so as to be removably mounted to said first container (col. 10, lines 25-28 and lines 66-67 and col. 11, lines 1-2). The fuel cartridge for the fuel cell according to claim 6, further comprising a fitting section at which said first container and said second container are fitted to each other (Fig. 12, ref. 1202). A fuel cell comprising a fuel cell body having a fuel pole and the fuel cartridge for the fuel cell according to claim 1, which contains liquid fuel, to be supplied to said fuel pole (col. 9, lines 13-19). The fuel cartridge for the fuel cell according to claim 1, wherein a liquid surface indication member for indicating the level of a liquid surface of said first liquid fuel or the level of a liquid surface of said second liquid fuel is arranged in said first chamber or in said second chamber (Fig. 6; col. 7, lines 20-30). The fuel cell according to claim 14, wherein a measurement section for measuring the level of a liquid surface of said first liquid fuel or the level of a liquid surface of said second liquid fuel is arranged in said fuel cell body (Fig. 6; col. 7, lines 20-30). Prased et al., teach a cover member for covering said fuel outlet port, wherein said cover member is formed into a removable sheet (0041); further comprising a cover member for covering said fuel outlet port, wherein said cover member is an elastic member with a self-sealing characteristic (0036).

Bullock et al., teach a cover member for covering said fuel outlet port, wherein said cover member is formed into a removable sheet (0030-0031); further comprising a cover member for covering said fuel outlet port, wherein said cover member is an elastic member with a self-sealing characteristic (0030-0031).

DeVos et al., teach a cover member for covering said fuel outlet port, wherein said cover member is formed into a removable sheet (0038); further comprising a cover member for covering said fuel outlet port, wherein said cover member is an elastic member with a self-sealing characteristic (0035-0036).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to insert the teachings of Prased et al., or Bullock et al., or DeVos et al., into the teachings of Fajita et al., because the prior art of record teach a self-sealing arrangement prevents leakage from the fuel receptacle.

Response to Arguments

4. Applicant's arguments with respect to above claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANGELA J. MARTIN whose telephone number is

(571)272-1288. The examiner can normally be reached on Monday-Friday from 10:00 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AJM
/Angela J. Martin/
Examiner, Art Unit 1795